LISTING OF THE CLAIMS:

1. (Currently Amended) A contents alteration detection apparatus having a data filling apparatus and a detection apparatus, said data filling apparatus filling certain embedding data to contents data being objective to embed said embedding data, said detection apparatus detecting whether alteration was added to said contents data or not, said data filling apparatus, comprising:

a contents data dividing means for dividing at least a part of said contents data into a plurality of first data blocks, each first data block containing a plurality of unit data; and a data filling means for filling each of certain first embedding data to each of said divided first data blocks to generate a plurality of second data blocks ~~having second embedding data~~, the second data blocks having a modified relationship, relative to the first data blocks, between values of a corresponding plurality of said unit data in adjacent second data blocks according to a predefined rule, said detection apparatus~~,~~ comprising:

a data extracting means for extracting said second embedding data filled in each of at least a part of said second data blocks to obtain second embedding data; and an alteration detecting means for detecting whether or not alteration was added to each of at least a part of said second data blocks based on said extracted second embedding data having the modified relationship according to the predefined rule, and an altered position indication means for analyzing the second embedding data relative to the first embedding data to determine for each of the second image blocks, whether changes were made in said each of the second image blocks for indicating the positions occupied by said second image blocks of which added alteration was detected.

2. (Currently Amended) A contents alteration detection apparatus having a data filling apparatus and a detection apparatus, said data filling apparatus filling certain embedding data to image data, said detection apparatus detecting whether alteration was added to said image data or not, said data filling apparatus, comprising: an image dividing means for dividing said image data into a plurality of first image blocks, each first image block containing a plurality of unit data; and a data filling means for filling each of certain first embedding data to each of said divided first image blocks to generate a plurality of second image blocks ~~having second embedding data~~, the second image blocks having a modified relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule, said detection apparatus, comprising: a data extracting means for extracting ~~said second~~ embedding data filled in each of said second image blocks to obtain second embedding data; and an alteration detecting means for detecting whether or not alteration was added to each of said second image blocks based on said extracted second embedding data having the modified relationship according to the predefined rule, and an altered position indication means for analyzing the second embedding data relative to the first embedding data to determine for each of the second image blocks, whether changes were made in said each of the second image blocks for indicating the positions occupied by said second image blocks of which added alteration was detected.

3. (Cancelled)

4. (Currently Amended) ~~The~~ A contents alteration detection apparatus ~~according to claim 2~~ having a data filling apparatus and a detection apparatus, said data filling apparatus filling certain

embedding data to image data, said detection apparatus detecting whether alteration was added to said image data or not, said data filling apparatus, comprising: an image dividing means for dividing said image data into a plurality of first image blocks, each first image block containing a plurality of unit data; and a data filling means for filling each of certain first embedding data to each of said divided first image blocks to generate a plurality of second image blocks, the second image blocks having a modified relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule, said detection apparatus, comprising: a data extracting means for extracting said second embedding data filled in each of said second image blocks to obtain second embedding data; and an alteration detecting means for detecting whether or not alteration was added to each of said second image blocks based on said extracted second embedding data having the modified relationship according to the predefined rule, and an altered position indication means for indicating the positions occupied by said second image blocks of which added alteration was detected; and

wherein said data filling means, in the case that alteration was added to any of said second image blocks, adjusts said mutually corresponding plurality of unit data values contained in said second image blocks to which alteration was added so that said values do not comply with said certain rule.

5. (Original) The contents alteration detection apparatus according to claim 4 wherein said data extracting means extracts as said second embedding data, from each of said plurality of second

image blocks, the data represented by the relationship between or among said plurality of unit data values contained in each of said second image blocks according to a certain rule.

6. (Original) The contents alteration detection apparatus according to claim 5 wherein said alteration detecting means detects whether alteration was added to each of said second image blocks or not based on results of comparison between said embedded first embedding data and said extracted second embedding data.

7. (Previously Presented) The contents alteration detection apparatus according to claim 2 wherein said first image blocks and said second image blocks are conversion blocks that contain said unit data, and also contain one or more sets of conversion coefficients acquired by dividing image data into certain processing blocks and converting it from a space domain into a frequency domain, respectively.

8. (Previously Presented) The contents alteration detection apparatus according to claim 2 wherein said first image blocks and said second image blocks are discrete cosine transformation (DCT) blocks that contain said unit data, and also contain plural sets of DCT coefficients acquired by dividing image data into certain DCT blocks and performing (DCT) process on it.

9. (Currently Amended) A data filling apparatus filling certain embedding data to image data so as to detect whether alteration was added to image data, said detection being performed, based on second embedding data ~~filled to~~ in each of a plurality of second image blocks contained in said image data, by detecting whether or not alteration was added to each of said second image

blocks, and an altered position indication means for indicating the positions occupied by said second image blocks of which added alteration was detected, said data filling apparatus comprising: an image dividing means for dividing image data into a plurality of first image blocks, each first image block containing a plurality of unit data; and a data filling means for filling each of certain first embedding data to each of said divided first image blocks to generate a plurality of second image blocks ~~having second embedding data~~, the second image blocks having a modified relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule.

10. (Cancelled)

11. (Currently Amended) ~~The~~ A data filling apparatus ~~according to claim 9~~ filling certain embedding data to image data so as to detect whether alteration was added to image data, said detection being performed, based on second embedding data in each of a plurality of second image blocks contained in said image data, by detecting whether or not alteration was added to each of said second image blocks, and an altered position indication means for indicating the positions occupied by said second image blocks of which added alteration was detected, said data filling apparatus comprising: an image dividing means for dividing image data into a plurality of first image blocks, each first image block containing a plurality of unit data; and a data filling means for filling each of certain first embedding data to each of said divided first image blocks to generate a plurality of second image blocks, the second image blocks having a

modified relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule; and

wherein said data filling means, in the case that alteration was added to any said second image blocks, adjusts said mutually corresponding plurality of unit data values contained in each of said second image blocks to which alteration was added so that said values do not comply with said certain rule.

12. (Currently Amended) A detection apparatus for detecting whether or not alteration was added to each of a plurality of second image blocks having second embedding data generated by dividing image data into a plurality of first image blocks, each first image block containing a plurality of unit data, and filling each of certain first embedding data to each of said divided first image blocks, said detection apparatus comprising: a data extracting means for extracting second embedding data filled in each of said second image blocks, the second image blocks having a modified relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule; and an alteration detecting means for analyzing the second embedding data relative to the first embedding data for detecting whether or not alteration was added to each of said second image blocks based on said extracted second embedding data having the modified relationship according to the predefined rule, and an altered position indication means for indicating the positions occupied by said second image blocks of which added alteration was detected.

13. (Cancelled)

14. (Currently Amended) ~~The~~ A detection apparatus ~~according to claim 12~~ for detecting whether or not alteration was added to each of a plurality of second image blocks having second embedding data generated by dividing image data into a plurality of first image blocks, each first image block containing a plurality of unit data, and filling each of certain first embedding data to each of said divided first image blocks, said detection apparatus comprising: a data extracting means for extracting second embedding data filled in each of said second image blocks, the second image blocks having a modified relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule; and an alteration detecting means for detecting whether or not alteration was added to each of said second image blocks based on said extracted second embedding data having the modified relationship according to the predefined rule, and an altered position indication means for indicating the positions occupied by said second image blocks of which added alteration was detected; and

wherein: in the case that alteration was added to any of said second image blocks, said mutually corresponding plurality of unit data values contained in each of said second image blocks to which alteration was added are adjusted so that said values do not comply with said certain rule; and said contents alteration detecting means detects whether or not alteration was added to each of said second image blocks based on results of comparison between said embedded first embedding data and said extracted second embedding data.

15. (Cancelled)

16. (Currently Amended) A contents alteration detection method for filling certain embedding data to contents data being objective to embed said embedding data, said detection method detecting whether alteration was added to said contents data or not while: dividing said contents data into a plurality of first data blocks, each first data block containing a plurality of unit data; filling each of certain first embedding data to each of said divided first data blocks to generate a plurality of second data blocks ~~having second embedding data~~, the second data blocks having a modified relationship, relative to the first data blocks, between values of a corresponding plurality of said unit data in adjacent second data blocks according to a predefined rule, extracting said second embedding data filled in each of said second blocks to obtain second embedding data; and detecting whether or not alteration was added to each of said second data blocks based on said extracted second embedding data, relative to the first embedding data, and having the modified relationship according to the predefined rule, and detecting and indicating the positions occupied by said second image blocks of which added alteration was detected.

17. (Currently Amended) A recording medium in an alteration detection apparatus having a data filling apparatus and a detection apparatus, said data filling apparatus filling certain embedding data to image data, said detection apparatus detecting whether alteration was added to said image data or not, said recording medium carrying a program for having a computer execute the steps of: dividing image data into a plurality of first image blocks, each first image block containing a plurality of unit data; filling each of certain first image blocks to generate a plurality of second image blocks ~~having second embedding data~~, the second image blocks having a modified

relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule extracting ~~said second~~ embedding data filled in each of said second image blocks to obtain second embedding data; and detecting whether or not alteration was added to each of said second image blocks based on said extracted second embedding data having the modified relationship according to the predefined rule, and detecting and indicating the positions occupied by said second image blocks of which added alteration was detected.

18. (Currently Amended) A recording medium in a data filling apparatus filling certain embedding data to image data so as to detect whether or not alteration was added to image data, said detection being performed, based on ~~second embedding~~ data filled to each of a plurality of second image blocks contained in said image data, by detecting whether or not alteration was added to each of said image blocks, and detecting and indicating the positions occupied by said second image blocks of which added alteration was detected, said recording medium carrying a program for having a computer execute the steps of: dividing image data into a plurality of first image blocks, each first image block containing a plurality of unit data; ~~and~~ filling each of certain first embedding data to each of said divided first image blocks to generate a plurality of second image blocks ~~having second embedding data~~, the second image blocks having a modified relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule; extracting embedding data from the second image blocks to obtain second embedding data; and analyzing the second embedding data relative to the first embedding data to determine for each of the second image blocks, whether changes were made in said each of the second image blocks.

19. (Currently Amended) A recording medium in a detection apparatus for detecting whether or not alteration was added to each of a plurality of second image blocks ~~having second embedding data~~ generated by dividing image data into a plurality of first image blocks and filling each of certain first embedding data to each of said divided first image blocks, each first image block containing a plurality of unit data, and the second image blocks having a modified relationship, relative to the first image blocks, between values of a corresponding plurality of said unit data in adjacent second image blocks according to a predefined rule, said recording medium carrying a program for having a computer execute the steps of: extracting ~~second~~ embedding data filled in each of said second image blocks to obtain second embedding data; ~~and~~ detecting whether or not alteration was added to each of said second image blocks based on said extracted embedding data having the modified relationship according to the predefined rule[,]; and, relative to the first embedding data, and detecting and indicating the positions occupied by said second image blocks of which added alteration was detected, based on said extracted second embedding data.